

REMARKS/ARGUMENTS

Claims 1-13 were pending in the application. By this amendment, claims 1, 6, and 11 are amended, and claim 14 is new. Support for the amendments to claims 1, 6, and 11 and the addition of claim 14 may be found in the specification and claims as originally filed. For example, support for the amendments to claims 1, 6, and 11 may be found in paragraph [0012] and support for new claim 14 may be found in paragraph [0010] and original claim 2. Thus, no new matter is added and claims 1, 3-6, and 8-14 are pending and at issue.

Applicant's Interview Summary

The examiner graciously agreed to a telephone interview that was conducted on January 12, 2006. Attendees at the interview were Examiner Krishnamurthy, Roger Heppermann (37,641) and Michael Chinlund (55,064). The interview focused on GB Patent No. 2 252 848 A to Yonnet ("Yonnet") and whether Yonnet discloses a spring to close valve. An agreement was not reached with regard to the ambiguous language found on pages 6 and 7 of Yonnet.

The applicant's representatives proposed a new claim amendment which the examiner agreed to consider. The amendments to the claims above reflect this proposed amendment. The applicant thanks the examiner for the assistance he provided during the interview.

35 U.S.C. § 102 Rejections

The applicant respectfully traverses the rejection of claims 1, 3-6, and 8-13 as anticipated by Great Britain Patent Application no. GB 2,252,848 to Yonnet ("Yonnet"). Each of amended claims 1, 3-6, and 8-13 recites a pilot valve that opens as pressure in the pilot loading pressure line increases. Yonnet does not disclose a pilot valve that opens as pressure in the pilot loading pressure line increases.

Specifically, Yonnet discloses a gas supply pressure control apparatus including a pilot governor 18 that controls an active governor 14 which, in turn, controls downstream (or district) pressure in the system. However, the pilot governor 18 of Yonnet closes as pressure in pipeline 29 increases (page 7, lines 2-5). As a result, Yonnet can not anticipate any of claims 1, 3-6, and 8-13 which now recite a pilot valve that opens as the pilot loading pressure increases. Accordingly, the applicant therefore respectfully requests withdrawal of the rejection of claims 1, 3-6, and 8-13.

Furthermore, it would not have been obvious to modify Yonnet to produce the claimed invention. In particular, the claimed system is configured so that the pressure in the pilot loading pressure line overcomes spring force of a spring to close pilot valve, meaning that the pressure in the pilot loading pressure line 32 is greater than the pressure in either the main outlet line 20, the pilot control line 28, or the servo exhaust line 30 during operation. See paragraphs [0013] and [0014]. Thus, when the set point needs to be lowered, excess pressure in the pilot loading pressure line 32 may be vented into the servo exhaust line 30.

The Yonnet device, on the other hand, uses the feedback pressure line 11 as a lower limit for the pressure in line 29. Thus, there are times during operation of the Yonnet device that the pressure in line 29 is equal to the pressure in the feedback pressure line 11, in which case the pressure in the line 29 would not vent through the feedback pressure line 11, even if such venting were attempted (something that Yonnet does not disclose). Because Yonnet does not recognize that it is advantageous to always have the ability to vent the pressure from the pilot loading pressure line to the exhaust line, Yonnet fails to even recognize the problem solved by the claimed system. Moreover, Yonnet fails to suggest that the venting problem should be solved, let alone disclose or suggest a particular method of solving this problem, such as configuring a pilot valve to open as pressure in line 29 increases.

Additionally, Yonnet does not provide motivation to modify the pilot governor 18 to open as pressure in line 29 increases because making such a modification would render the Yonnet device non-operable for the use disclosed. In particular, Yonnet specifically teaches that as the pressure in line 29 increases, the pilot governor 18 restricts flow (i.e., closes) to the active governor 14 (page 6, line 22 through page 7, line 4). If the pilot governor 18 were modified to open as pressure is increased in line 29, the Yonnet device would not function properly because, as pressure in the line 29 increased, flow to the active governor would be increased. This is exactly opposite of what Yonnet teaches should happen. Because modifying the pilot governor 18 to open when pressure in the pressure line 29 increases would result in a non-operable device, Yonnet provides no motivation to modify the pilot governor in such a manner. As a result, none of the pending claims are anticipated or rendered obvious by Yonnet.

35 U.S.C. § 103 Rejection

The applicant respectfully traverses the rejection of claim 13 as obvious over Yonnet in view of U.S. Patent No. 4,084,539 to Schmidt ("Schmidt"). Neither Yonnet nor Schmidt

discloses an adjustable stop-nut, let alone an adjustable stop-nut that determines a set point for a pilot valve assembly as is recited by claim 13. Yonnet fails to disclose a valve having an adjustable spring bias, let alone a valve including a stop-nut to adjust the spring bias. Simply stating that stop-nuts are conventional in the art (Office Action page 3) demonstrates that Yonnet fails to disclose such a stop-nut, or an adjustable set point of any sort that would require a stop-nut for adjusting the set point. Therefore, Yonnet fails to disclose or suggest an adjustable stop-nut that determines a set point for a pilot valve assembly.

Likewise, Schmidt fails to disclose or suggest an adjustable stop-nut that determines a set point for a pilot valve assembly. The Office Action points to element 62 in Fig. 1 of the Schmidt disclosure as a stop-nut. The applicant respectfully disagrees. Element 62 is a turning screw (col. 2, line 35), not a stop-nut. The turning screw 62 must have a member 66 between the screw 62 and the spring 60, otherwise, the screw 62 would not change the spring 60 bias because the diameter of the screw 62 is smaller than the inner diameter of the spring 60. *See Fig. 1.* The stop-nut of the instant application requires no such additional member. Therefore, Schmidt fails to disclose or suggest an adjustable stop-nut that determines a set point for a pilot valve assembly, as is recited by claim 13. Because both Yonnet and Schmidt fail to disclose or suggest an adjustable stop-nut that determines a set point for a pilot valve assembly, claim 13 can not be rendered obvious by any combination thereof. Accordingly, the applicant respectfully requests withdrawal of the rejection of claim 13 for this additional reason.


CONCLUSION

The applicant respectfully requests entry of the foregoing amendments and withdrawal of the rejection of claims 1, 3-6, and 8-13. No additional fees are believed due at this time as the applicant originally paid for 20 claims to be examined and new claim 14 only brings the total pending claims to 12 due to the previous cancellation of claims 2 and 7. However, if there are any additional fees or refunds required, the Commissioner is directed to charge or debit Deposit Account No. 13-2855 of Marshall, Gerstein & Borun LLP. A copy of this paper is enclosed herewith.

If there are matters that can be discussed by telephone to further the prosecution of this application, the applicant respectfully requests that the examiner call its attorney at the number listed below.

Dated: February 3, 2006

Respectfully submitted,

By 

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